



SFUND RECORDS CTR
1110-00367

ICF Consulting / Laboratory Data Consultants

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SFUND RECORDS CTR

88072816

MEMORANDUM

TO: Nancy Riveland-Har
Remedial Project Manager
Cleanup Section 4, SFD-7-4

THROUGH: Rose Fong *RF*
ESAT Project Officer
Quality Assurance (QA) Office, PMD-3

FROM: Doug Lindelof *DL*
Data Review and QA Document Review Task Manager
Environmental Services Assistance Team (ESAT)

ESAT Contract No.: 68-W-01-028
Task Order No.: B01
Technical Direction No.: B0105128 Amendment 2

DATE: July 16, 2002

SUBJECT: Review of Analytical Data, Tier 3

Attached are comments resulting from ESAT Region 9 review of the following analytical data:

SITE:	Omega Chem OU-2
SITE ACCOUNT NO.:	09 BC LA02
CERCLIS ID NO.:	CAD042245001
CASE NO.:	30499
SDG NO.:	Y0GR9
LABORATORY:	Clayton Group Services (CLAYTN)
ANALYSIS:	Volatiles
SAMPLES:	1 Water Sample
COLLECTION DATE:	May 31, 2002
REVIEWER:	Denise McCaffrey, ESAT/LDC

The comments and qualifications presented in this report have been reviewed by the EPA Task Order Project Officer (TOPO) for the ESAT Contract, whose signature appears above.

If there are any questions, please contact Rose Fong (QA Program/EPA) at (415) 972-3812.

Attachment

cc: Cecilia Moore, CLP PO USEPA Region 5
Steve Remaley, CLP PO USEPA Region 9
ESAT File

CLP PO: ☒ FYI ☐ Attention ☐ Action

SAMPLING ISSUES: ☐ Yes ☒ No

Data Validation Report

Case No.: 30499 SDG No.: Y0GR9
Site: Omega Chem OU-2
Laboratory: Clayton Group Services (CLAYTN)
Reviewer: Denise McCaffrey, ESAT/LDC
Date: July 16, 2002

I. Case Summary

SAMPLE INFORMATION:

Samples: Y0GR9
Concentration and Matrix: Low Level Water
Analysis: Volatiles
SOW: OLC03.2
Collection Date: May 31, 2002
Sample Receipt Date: June 1, 2002
Analysis Date: June 6, 2002

FIELD QC:

Trip Blanks (TB): Y0GR5
Field Blanks (FB): Not Provided
Equipment Blanks (EB): Not Provided
Background Samples (BG): Not Provided
Field Duplicates (D1): Y0GR8 and Y0GR9

METHOD BLANKS AND ASSOCIATED SAMPLES:

VBLKLB: Y0GR9, Y0GR9DL, and VHBLKLA

TABLES:

1A: Analytical Results with Qualifications
1B: Data Qualifier Definitions for Organic Data Review

MS- Matrix Spike, MSD - Matrix Spike Duplicate, DL - Dilution

CLP PO ACTION:

None.

CLP PO ATTENTION:

None.

SAMPLING ISSUES:

None.

ADDITIONAL COMMENTS:

Results for trip blank Y0GR5, collected with the samples of this sample delivery group (SDG) on May 31, 2002, are located in Case No. 30499, SDG No. Y0GP9.

Results for sample Y0GR8, the field duplicate of sample Y0GR9, are included in Case No. 30499, SDG No. Y0GP9.

Tentatively identified compounds (TICs) detected in the sample are reported on Form 1F and is attached to this report.

Standard preparation logs are missing in the data package and cannot be evaluated. This information was requested from the laboratory but has not been received to date. Data are not qualified in this report due to missing standard preparation logs. Refer to the attached telephone record log for details.

This report was prepared in accordance with the following documents:

- ESAT Region 9 Standard Operating Procedure 901, *Guidelines for Data Review of Contract Laboratory Program Analytical Services (CLPAS) Volatile and Semivolatile Data Packages*;
- USEPA Contract Laboratory Program Statement of Work for Low Concentration Organics Analysis, OLC03.2, December 2000; and
- USEPA Contract Laboratory Program National Functional Guidelines for Low Concentration Organic Data Review, June 2001

II. Validation Summary

	Acceptable/Comment	
HOLDING TIMES	YES	
GC/MS TUNE/GC PERFORMANCE	YES	
INITIAL CALIBRATIONS	YES	
CONTINUING CALIBRATIONS	YES	
LABORATORY BLANKS	YES	
FIELD BLANKS	YES	
DEUTERATED MONITORING COMPOUNDS (DMCs)	YES	
MATRIX SPIKE/DUPLICATES	YES	
INTERNAL STANDARDS	YES	
COMPOUND IDENTIFICATION	YES	
COMPOUND QUANTITATION	YES	B, C
SYSTEM PERFORMANCE	YES	
FIELD DUPLICATE SAMPLE ANALYSIS	NO	A

III. Validity and Comments

- A. In the analysis of the field duplicate pair, the following outliers were obtained for the analytes listed below.

<u>Analyte</u>	<u>Y0GR8 (D1)</u> <u>Conc. $\mu\text{g/L}$</u>	<u>Y0GR9 (D1)</u> <u>Conc. $\mu\text{g/L}$</u>	<u>RPD</u>
Dichlorodifluoromethane	3	10U	N/A
Methyl tert-butyl ether	32	22	37%
1,1-Dichloroethane	0.6	10U	N/A
1,1,1-Trichloroethane	2	10U	N/A
Benzene	0.9	10U	N/A

A relative percent differences (RPD) value is not calculated and is presented above as "N/A" when an analyte is detected in a sample but is nondetected (U) at the CRQL in the associated field duplicate sample. The effect on data quality is not known.

It should be noted that sample Y0GR9 was analyzed at a 20-fold dilution, whereas sample Y0GR8 was analyzed undiluted. The lower concentrations detected in sample Y0GR8 were most likely diluted out in sample Y0GR9.

A relative percent difference (RPD) of 37% was obtained for methyl tert-butyl ether in the analysis of field duplicate pair Y0GR8 and Y0GR9. The value obtained for methyl tert-butyl ether in sample Y0GR8 exceeded the calibration range and is considered to be quantitatively questionable. The effect on the data quality is not known.

The analysis of field duplicate samples is a measure of both field and analytical precision. The imprecision in the results of the analysis of the field duplicate pair may be due to the sample matrix or poor sampling or analysis techniques.

- B. Sample Y0GR9 was analyzed at a 50-fold dilution due to the high level of 1,1,2-trifluoro-1,2,2-trichloroethane. The result for 1,1,2-trifluoro-1,2,2-trichloroethane is reported from the 50-fold diluted sample in Table 1A; results for all other analytes are reported from the original analysis performed at a 20-fold dilution.
- C. Sample Y0GR9 was analyzed at a 20-fold dilution due to the high levels of target analytes. The CRQLs listed for this sample in Table 1A have been multiplied by the dilution factor.

SDG No. : Y0GR9

Tier 3 Table 1A

QUALIFIED DATA
Concentration in ug/L

Analysis Type : Low Level Water Samples
For Volatiles

For Volatiles

Date : 07/16/2002

Station Location :	GW202-OW6-1048			Method Blank			Storage Blank			CRQL											
Sample ID :	Y0GR9 D1			VBLKLB			VHBLKLA														
Collection Date :	05/31/2002																				
Dilution Factor :	20.0			1.0			1.0														
Volatile Compound	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Dichlorodifluoromethane	10U		AC	0.5U			0.5U			0.5											
Chloromethane	10U		C	0.5U			0.5U			0.5											
Vinyl Chloride	10U		C	0.5U			0.5U			0.5											
Bromomethane	10U		C	0.5U			0.5U			0.5											
Chloroethane	10U		C	0.5U			0.5U			0.5											
Trichlorofluoromethane	340		C	0.5U			0.5U			0.5											
1,1-Dichloroethene	240		C	0.5U			0.5U			0.5											
1,1,2-Trichloro-1,2,2-trifluoroethane	840		BC	0.5U			0.5U			0.5											
Acetone	100U		C	5U			5			5											
Carbon Disulfide	10U		C	0.5U			0.5U			0.5											
Methyl Acetate	10U		C	0.5U			0.5U			0.5											
Methylene Chloride	10U		C	0.5U			0.5U			0.5											
trans-1,2-Dichloroethene	10U		C	0.5U			0.5U			0.5											
Methyl tert-Butyl Ether	22		AC	0.5U			0.5U			0.5											
1,1-Dichloroethane	10U		AC	0.5U			0.5U			0.5											
cis-1,2-Dichloroethene	10U		C	0.5U			0.5U			0.5											
2-Butanone	100U		C	5U			5U			5											
Bromochloromethane	10U		C	0.5U			0.5U			0.5											
Chloroform	10U		C	0.5U			0.5U			0.5											
1,1,1-Trichloroethane	10U		AC	0.5U			0.5U			0.5											
Cyclohexane	10U		C	0.5U			0.5U			0.5											
Carbon Tetrachloride	10U		C	0.5U			0.5U			0.5											
Benzene	10U		AC	0.5U			0.5U			0.5											
1,2-Dichloroethane	10U		C	0.5U			0.5U			0.5											
Trichloroethene	23		C	0.5U			0.5U			0.5											
Methylcyclohexane	10U		C	0.5U			0.5U			0.5											
1,2-Dichloropropane	10U		C	0.5U			0.5U			0.5											
Bromodichloromethane	10U		C	0.5U			0.5U			0.5											
cis-1,3-Dichloropropene	10U		C	0.5U			0.5U			0.5											
4-Methyl-2-pentanone	100U		C	5U			5U			5											
Toluene	10U		C	0.5U			0.5U			0.5											
trans-1,3-Dichloropropene	10U		C	0.5U			0.5U			0.5											
1,1,2-Trichloroethane	10U		C	0.5U			0.5U			0.5											
Tetrachloroethene	140		C	0.5U			0.5U			0.5											
2-Hexanone	100U		C	5U			5U			5											
Dibromochloromethane	10U		C	0.5U			0.5U			0.5											
1,2-Dibromoethane	10U		C	0.5U			0.5U			0.5											

ANALYTICAL RESULTS

Page 2 of 2

Case No. : 30499 SDG No. : Y0GR9
 Site : OMEGA RECOVERY SERV.
 Lab : CLAYTON GROUP SERVICES INC.
 Reviewer : DENISE MCGAFFREY, ESAT/LDC
 Date : 07/16/2002

Tier 3 Table 1A

QUALIFIED DATA
 Concentration in ug/L

Analysis Type : Low Level Water Samples
 For Volatiles

Station Location :	GW202-OW6-1048			Method Blank	VBLKLB			Storage Blank	VHBLKLA			CRQL									
Sample ID :	Y0GR9			D1																	
Collection Date :	05/31/2002																				
Dilution Factor :	20.0				1.0				1.0												
Volatile Compound	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Chlorobenzene	10U		C	0.5U			0.5U			0.5											
Ethylbenzene	10U		C	0.5U			0.5U			0.5											
Xylenes (total)	10U		C	0.5U			0.5U			0.5											
Styrene	10U		C	0.5U			0.5U			0.5											
Bromoform	10U		C	0.5U			0.5U			0.5											
Isopropylbenzene	10U		C	0.5U			0.5U			0.5											
1,1,2,2-Tetrachloroethane	10U		C	0.5U			0.5U			0.5											
1,3-Dichlorobenzene	10U		C	0.5U			0.5U			0.5											
1,4-Dichlorobenzene	10U		C	0.5U			0.5U			0.5											
1,2-Dichlorobenzene	10U		C	0.5U			0.5U			0.5											
1,2-Dibromo-3-chloropropane	10U		C	0.5U			0.5U			0.5											
1,2,4-Trichlorobenzene	10U		C	0.5U			0.5U			0.5											
1,2,3-Trichlorobenzene	10U		C	0.5U			0.5U			0.5											

Val - Validity. Refer to Data Qualifiers in Table 1B.

Com - Comments. Refer to the Corresponding Section in the Narrative for each letter.

CRQL - Contract Required Quantitation Limit, N/A - Not Applicable, NA - Not Analyzed

D1, D2, etc. - Field Duplicate Pairs

FB - Field Blank, EB - Equipment Blank, TB - Trip Blank, BG - Background Sample

TABLE 1B
DATA QUALIFIER DEFINITIONS FOR ORGANIC DATA REVIEW

The definitions of the following qualifiers are prepared according to the document, "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review," February 1994.

- U The analyte was analyzed for but was not detected above the reported sample quantitation limit.
- L Indicates results which fall below the Contract Required Quantitation Limit. Results are estimated and are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

1LCF

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS
DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name Clayton Group ServicesContract 68-W-01-046

Y0GR9

Lab Code CLAYTNCase No. 30499

Client No. _____

SDG No. Y0GR9Lab Sample ID: 02060002-001ADate Received: 06/01/2002Lab File ID: L1077.DDate Analyzed: 06/06/2002Purge Volume: 25 (ML)Dilution Factor: 20.00GC Column DB-VRXID: 0.25

(MM)

Length: 60

(M)

Number TICs found: 6

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (UG/L)	Q
01		unknown (5.29)	5.29	18	J
02	1455-13-16	Methanol-d4 (in method blank)	5.52	1000	BJ
03		unknown (6.89) Dichlorotrifluoroethane	6.89	12	J
04	0000-00-0	cis-1,3-Dichloropropene-d4 (in method blank)	14.75	48	BJ
05	000000-00-0	n-Decane-D22	20.37	18	NJ
06		unknown (22.27) ↓	22.27	12	BJ

SL, 7/15/02.

Distribution: (original)ESAT; (1)Lab copy, (2)Regional Copy, (3)CLASS copy

TECHNICAL DIRECTION NO. B0105128 Amendment 2

SITE ACCOUNT NO: 09 BC LA02

SITE NAME: Omega Chem OU-2

CERCLIS CAD042245001 ☒ RI/RA ☐ Site Assess ☐ Enforcement ☐ Emergency
Resp ☐ Brownfields

TO NUMBER: B01 68-W-01-028 ICF Consulting **DATE:** ~~6-21-02~~ 6-24-02 7-1-02

TASK: 5. Superfund Data Review/Document Review **TOPO:** Rose Fong

DESCRIPTION OF SERVICES TO BE PERFORMED: (Include Any Deliverables, Due Dates Or Other Details Provided To Contractor of Performance Required)

Amendment 1: Add SDGs Y0GP9 and Y0GR9. Delay due date.



Y0GP0.WK



Y0GR9.WK

Amendment 2: Y0GP0 for archive only.



B30499.W01046.Y0GP



B30499.W01038.Y0GW

Data Package Information

Project Information:

Case# 30499 Data type VO EPA Site Manager Nancy
Riveland-Har SDG# Y0GP0 & Y0GW6; GP9 & GR9 Mail
Code SFD-7-4 Laboratory A4

☐ EPA-Lead Non-CLP ☐ REAP EMAX

Level of Review: Tier 3 of volatiles only, focusing on PCE and its degradation products, freons, and BTEX. No review of other data.

Deliverable

☒ Validation Reports

Due date

~~7-22-02~~ 7-24-02

Pkgs to ESAT: 6/28

Y0GP0: 2W; GW6: 20W; GP9:20W; GR9:1W

Complete: Rec: Transmit: